

VIII.3.2 FORECAST COMPONENT OPERATIONS SYSTEM DOCUMENTATION

This Section summarizes the Operations available for use in the Forecast Component.

A detailed description of each Operation is in Section VIII.3.3.

Table 1 lists the currently available Operations in order by Operation number.

Table 2 lists the currently available Operations in order by Operation identifier.

Table 1. Operations in order by Operation Number

Number	Identifier	Description	System	<u>1/</u>
1	SAC-SMA	Sacramento soil-moisture accounting model	BOTH	
2	UNIT-HG	Unit hydrograph	BOTH	
3	REDO-UHG	Reduced order unit hydrograph		<u>2/</u>
4	CLEAR-TS	Clear time series	BOTH	
5	SAC-PLOT	Sacramento type mean daily flow plot	CALB	
6	MEAN-Q	Mean discharge computation	BOTH	
7	LAG/K	Lag and K routing	BOTH	
8	CHANLOSS	Channel loss	BOTH	
9	MUSKROUT	Muskingum routing	BOTH	
10	ADD/SUB	Add or subtract time series	BOTH	
11	LAY-COEF	Layered coefficient routing	BOTH	
12	INSQPLOT	Instantaneous discharge plot	BOTH	
13	TATUM	Tatum routing	BOTH	
14	ADJUST-Q	Adjust simulated discharge	BOTH	
15	WEIGH-TS	Weight time series	BOTH	
16	STAT-QME	Mean daily discharges statistical summary	CALB	
17	WY-PLOT	Water year mean daily flow plot	CALB	
18	PLOT-TS	Plot time series	BOTH	
19	SNOW-17	Snow accumulation and ablation model	BOTH	
20	CHANGE-T	Change time interval	BOTH	
21	DWOPER	Dynamic wave routing	BOTH	
22	SS_SAC	State-space Sacramento model	FCST	
23	STAGE-Q	Stage-discharge conversion	BOTH	
24	API-CONT	Continuous API model	BOTH	
25	PLOT-TUL	Tulsa time series list and plot	BOTH	
26	RES-SNGL	Single reservoir regulation model	BOTH	
27	LIST-FTW	Fort Worth tabular time series display	BOTH	
28	CHANLEAK	Conceptual channel loss model		<u>3/</u>
29	API-MKC	MBRFC API rainfall-runoff model	BOTH	
30	MERGE-TS	Merge time series	BOTH	
31	SNOW-43	State-space snow accumulation and ablation model	BOTH	
32	FFG	Flash Flood Guidance	FCST	
33	API-CIN	OHRFC API rainfall-runoff model	BOTH	
34	API-SLC	CBRFC API rainfall-runoff model	BOTH	
35	API-HAR	MARFC API rainfall-runoff model	BOTH	
36	XIN-SMA	Xinjiang soil-moisture accounting model	BOTH	
37	LIST-MSP	Minneapolis tabular runoff display	FCST	<u>3/</u>
38	BASEFLOW	Baseflow simulation	BOTH	
39	LOOKUP	2 variable table lookup	BOTH	
40	WATERBAL	Water balance summary	CALB	
41	API-HAR2	MARFC API rainfall-runoff model #2	BOTH	
42	RSNWELEV	Rain-snow elevation computation	BOTH	
43	API-HFD	NERFC API rainfall-runoff model	BOTH	
44	SARROUTE	SSARR channel routing	BOTH	
45	DELTA-TS	Rate of change of time series	BOTH	
46	NOMSNG	Generate no missing value time series	BOTH	

Table 1. Operations in order by Operation Number

Number	Identifier	Description	System <u>1/</u>
47	PEAKFLOW	Peak flow comparison	CALB
48	MULT/DIV	Multiply or divide time series	BOTH
49	BEGASSIM	Beginning of Operations to be re-executed by Assimilator Operation	FCST
50	ASSIM	End of Operations to be re-executed by Assimilator Operation	FCST
51	SSARRESV	SSARR reservoir regulation	FCST
52	SUMPOINT	Time series summing point	BOTH
53	LOOKUP3	3 variable table lookup	BOTH
54	SWB-NILE	Simple water balance model	BOTH
55	FLDWAV	Generalized flood wave routing	BOTH
56	GLACIER	Glacier routing model	BOTH
57	CONS_USE	Consumptive use model	BOTH
58	RES-J	Joint reservoir regulation model	BOTH
59	TIDEREV	Tide balance review	FCST
60	ADJUST-T	Adjustment tide	FCST
61	STAGEREV	Stage review	FCST
62	ADJUST-H	Adjustment stage	FCST
63	SET-TS	Set time series values	BOTH

Notes:

1/ CALB = Calibration System only
FCST = Forecast System only
BOTH = Calibration and Forecast System

2/ not included in current programs

3/ under development

Table 2. Operations in order by Operation Identifier

<u>Identifier</u>	<u>Number</u>
ADD/SUB	10
ADJUST-H	62
ADJUST-Q	14
ADJUST-T	60
API-CIN	33
API-CONT	24
API-HAR	35
API-HAR2	41
API-HFD	43
API-MKC	29
API-SLC	34
ASSIM	50
BASEFLOW	38
BEGASSIM	49
CHANGE-T	20
CHANLEAK	28
CHANLOSS	8
CLEAR-TS	4
CONS_USE	57
DELTA-TS	45
DWOPER	21
FFG	32
FLDWAV	55
GLACIER	56
INSQPLOT	12
LAG/K	7
LAY-COEF	11
LIST-FTW	27
LIST-MSP	37
LOOKUP	39
LOOKUP3	53
MEAN-Q	6
MERGE-TS	30
MULT/DIV	48
MUSKROUT	9
NOMSNG	46
PEAKFLOW	47
PLOT-TS	18
PLOT-TUL	25
REDO-UHG	3
RES-J	58
RES-SNGL	26
RSNWELEV	42
SAC-PLOT	5
SAC-SMA	1
SARROUTE	44
SET-TS	63
SNOW-17	19
SNOW-43	31
SS_SAC	22
SSARRESV	51
STAGE-Q	23

Table 2. Operations in order by Operation Identifier

<u>Identifier</u>	<u>Number</u>
STAGEREV	61
STAT-QME	16
SUMPOINT	52
SWB-NILE	54
TATUM	13
TIDEREV	59
UNIT-HG	2
WATERBAL	40
WEIGH-TS	15
WY-PLOT	17
XIN-SMA	36